

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508

Reviewer: Sherer

2008 OCT 20 11:00

Results Table: Dose, Concentration, and Days Exceeded Results Summary

| Exposure Scenario <sup>1</sup>  | Water          |           |                |           |           |                   | Landfill  | Stack Air |           | Fugitive Air |           |
|---|----------------|-----------|----------------|-----------|-----------|-------------------|-----------|-----------|-----------|--------------|-----------|
| Release activity(ics) <sup>2</sup> ; exposure calculation(s) <sup>3</sup> | Drinking Water |           | Fish Ingestion |           | 7Q10 CC=4 | PDM Days Exceeded | LADD      | ADR       | LADD      | ADR          | LADD      |
|   | ADR            | LADD      | ADR            | LADD      |           |                   |           |           |           |              |           |
|   | mg/kg/day      | mg/kg/day | mg/kg/day      | mg/kg/day | µg/l      | # Days            | mg/kg/day | mg/kg/day | mg/kg/day | mg/kg/day    | mg/kg/day |
| Mfr/Use, max ADR,max LADD   |                |           |                |           |           |                   | -         | -         | -         | 3.68E-02     | 4.55E-04  |
| Use 2, PDM1, max ADR  | 6.23E-07       |           | 1.19E-08       |           | 1E-02     | 0                 | -         | -         | -         | -            | -         |
| Use 2, Max ADR  |                |           |                |           |           |                   | -         | -         | -         | 3.13E-02     | -         |
| Use 2,PDM2  | 6.05E-07       |           | 1.16E-08       |           | 9.72E-03  | 0                 | -         | -         | -         | -            | -         |
| Use 2, Max LADD   |                | 1.31E-08  |                | 1.77E-10  |           |                   | -         | -         | -         | -            | 4E-04     |
| Use 4, PDM, max ADR   | 1.95E-06       |           | 4.44E-08       |           | 3.99E-02  | 0                 | -         | -         | -         | -            | -         |
| Use 4, Max LADD   |                | 3.24E-08  |                | 4.38E-10  |           |                   | -         | -         | -         | -            | -         |
| Proc, PDM, max ADR  | 1.62E-10       |           | 3.11E-12       |           | 2.61E-06  | 0                 | -         | -         | -         | -            | -         |
| Proc, Max LADD  |                | 1.44E-12  |                | 1.95E-14  |           |                   |           |           |           |              |           |

<sup>1</sup> Exposure scenario titles consist of release activity followed by exposure calculation abbreviation.<sup>2</sup> Release activities are from engineering report's Manufacturing (Mfg), Processing (Proc) and Use release activity labels.

Multiple release activities are combined in one exposure scenario if their releases occur at same location.

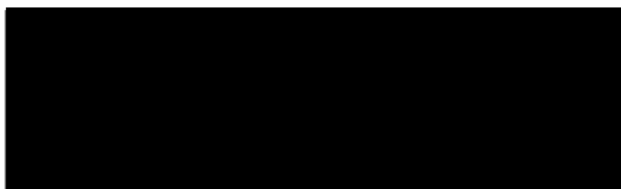
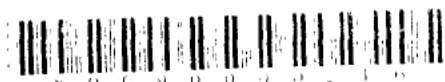
<sup>3</sup> Exposure calculations are Acute Dose Rate (ADR), Lifetime Average Daily Dose (LADD), and Probabilistic Dilution Model (PDM). There may be one, two, or all three exposure calculations per exposure scenario.

CC is the aquatic concentration of concern.

Results Table: Exposure Based (XB)/Persistent (P2B2) Criteria

| Parameter                                     | Exp Based | Persistent | Exceedance Value |
|---|-----------|------------|------------------|
| Drinking (Surface) Water Dose (mg/kg/day)     | No        | No         |                  |
| Fish Ingestion Dose (mg/kg/day)               | No        | No         |                  |
| Inhalation Dose (mg/kg/day)                   | No        | YES        |                  |
| Groundwater Dose (mg/kg/day)                  | No        | No         |                  |
| Surface Water Release After Treatment (kg/yr) |           |            |                  |
| Total Release After Treatment (kg/yr)         |           |            |                  |
| Consumer Use?                                 | No        |            |                  |

Fate test recommendations?: Laurence Libelo recommends full set of fate testing



## POST FOCUS EXPOSURE REPORT

Summary Table: Endpoints assessed

Endpoints-Assessed Table

| Endpoints/Assessment Cycles <sup>1</sup>        | Releases Assessed in NCEM2 <sup>2</sup> | Reasons for not assessing releases |                   |             |  |  |                 |
|---|---|------------------------------------|-------------------|-------------|--|--|-----------------|
|   |   | No XB Testing Required             | No Hazard Concern | No Releases | Release Below Acute Threshold <sup>5</sup> | Release Below Chronic Threshold <sup>5</sup> | Other           |
| Ingestion                                       |   |                                    |                   |             |  |  |                 |
| Surface water                                   | Y                                       | NA                                 |                   |             |  |  |                 |
| Ground water (landfill)                         | Y                                       | NA                                 |                   |             |  |  |                 |
| Consumer Use: DtD <sup>2</sup>                  | No                                      | NA                                 |                   |             | NA   | NA   | No Consumer use |
| Inhalation                                      |   |                                    |                   |             |  |  |                 |
| Air: incineration (stack)                       | N                                       | NA                                 |                   |             | x  |  |                 |
| Air: fugitive                                   | Y                                       | NA                                 |                   |             |  |  |                 |
| Consumer Use: CEM <sup>3</sup>                  | No                                      | NA                                 |                   |             | NA   | NA   | No Consumer use |
| Dermal  |   |                                    |                   |             |  |  |                 |
| Consumer Use: CEM                               | No                                      | NA                                 |                   |             | NA   | NA   | No Consumer use |
| Eco   |   |                                    |                   |             |  |  |                 |
| Surface water: ADR conc and/or PDM <sup>4</sup> | Y                                       | NA                                 |                   |             | NA   | NA   |                 |
| Consumer Use: DtD                               | No                                      | NA                                 |                   |             | NA   | NA   | No Consumer use |

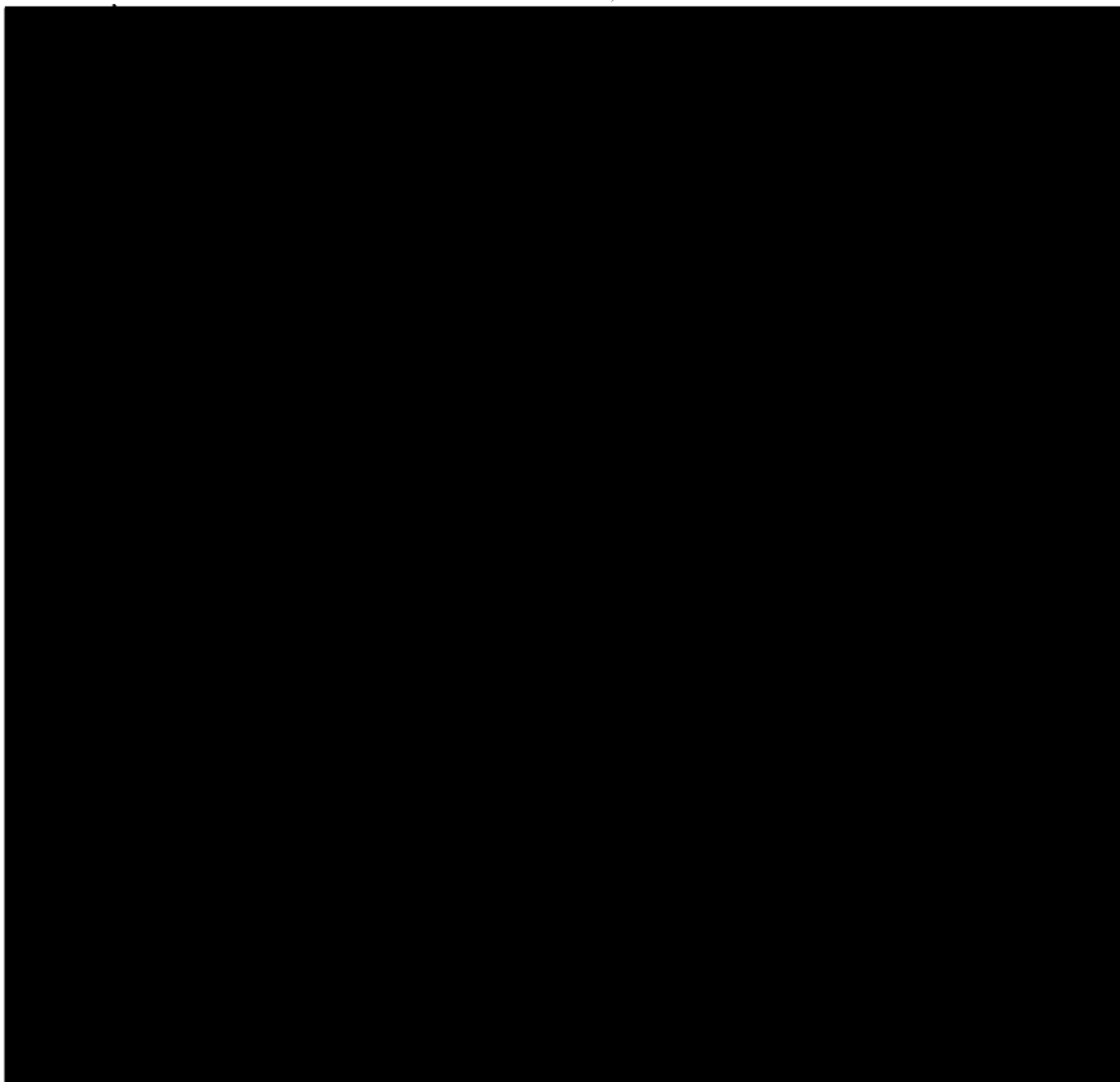
<sup>1</sup> Assessment cycles are endpoint concentrations and dose calculations within the NCEM2 model.

<sup>2</sup> Down-the-Drain Module

<sup>3</sup> Consumer Exposure Module

<sup>4</sup> Probabilistic Dilution Model

Remarks: Default table assumes case is not XB and no consumer use.



## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

Assessor:

## ENVIRONMENTAL RELEASES

Scenario#: 1

Number of Release Sites: 1

Release Activity: [REDACTED] Max ADR

Release Description: WATER LANDFILL STACK FUGITIVE

Non-sludge/Sludge

Total Releases:

(kg/yr)

(kg/yr)

(kg/yr)

(kg/yr)

Non-sludge/Sludge

Release Days/yr:

Per Site Release:

(kg/site/day)

(kg/site/day)

(kg/site/day)

(kg/site/day)

Remarks: [REDACTED]

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

|  |
|--|
| INHALATION EXPOSURE ESTIMATES (POST-TREATMENT) |
|--|

SCENARIO #: 1

RELEASE ACTIVITY [REDACTED], Max ADR

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites: [REDACTED]

Per Site Fugitive Release:

[REDACTED] kg/site/day

Fugitive Release Days per Year:

[REDACTED] days

% Removal via Fugitive Release:

0.00 %

Total Fugitive Release:

[REDACTED] kg/yr

Max Annual Average Air Concentration  
(Fugitive):6.08  $\mu\text{g}/\text{m}^3$ Max 24 Hour Average Air  
Concentration(Fugitive):200.00  $\mu\text{g}/\text{m}^3$ 

Per Site Stack Release:

[REDACTED] kg/site/day

Stack Release Days per Year:

[REDACTED] days

% Removal via Stack Release:

[REDACTED] %

Total Stack Release:

[REDACTED] kg/yr

Max Annual Average Air Concentration (Stack):

5.56  $\mu\text{g}/\text{m}^3$ 

Max 24 Hour Average Air Concentration (Stack):

71.50  $\mu\text{g}/\text{m}^3$ 

| Exposure Units                           | Results<br>(Stack) | Results<br>(Fugitive) | ASSUMPTIONS   |               |            |                                   |
|--|--------------------|-----------------------|---------------|---------------|------------|-----------------------------------|
|  |                    |                       | ED<br>(years) | AT<br>(years) | BW<br>(kg) | Inh. Rate<br>(m <sup>3</sup> /hr) |
| Cancer                                   |                    |                       |               |               |            |                                   |
| LADD <sub>pot</sub> (mg/kg/day)          | N/A                | 4.47E-04              | 30.00         | 75.00         | 71.80      | 0.55                              |
| LADC <sub>pot</sub> (mg/m <sup>3</sup> ) | N/A                | 2.43E-03              | 30.00         | 75.00         | NA         | NA                                |
| Acute                                    |                    |                       |               |               |            |                                   |
| ADR <sub>pot</sub> (mg/kg/day)           | N/A                | 3.68E-02              | NA            | 1 day         | 71.80      | 0.55                              |

Inhalation Comments:

## Stack Parameter Data

|                          |        |       |
|--------------------------|--------|-------|
| Stack Height             | 10.00  | m     |
| Inside Stack Diameter:   | 0.10   | m     |
| Stack Gas Exit Velocity: | 0.10   | m/sec |
| Stack Gas Temperature:   | 293.00 | K     |

## Fugitive Parameter Data

|                            |       |   |
|----------------------------|-------|---|
| Release Height:            | 3.00  | m |
| Length of Release Opening: | 10.00 | m |
| Width of Release Opening:  | 10.00 | m |

## Meteorological and Terrain Information:

|                                    |          |
|------------------------------------|----------|
| Surrounding Land Use:              | Rural    |
| Terrain Height:                    | 0.00 m   |
| Distance to Residence of Interest: | 100.00 m |
| Meteorological Class:              | Full     |
| Stability Class:                   | NA       |
| Wind Speed:                        | NA       |

## Downwash Information:

|                  |      |
|------------------|------|
| Facility Length: | NA m |
| Facility Width:  | NA m |
| Facility Height: | NA m |

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

Assessor:

## ENVIRONMENTAL RELEASES

Scenario#:2

Number of Release Sites: 1

Release Activity: PDM,max ADR

| Release Description: | WATER | LANDFILL          | STACK | FUGITIVE |
|----------------------|-------|-------------------|-------|----------|
|                      |       | Non-sludge/Sludge |       |          |

Total Releases:

|  |         |         |         |         |
|--|---------|---------|---------|---------|
|  |         |         |         |         |
|  | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

Non-sludge/Sludge

Release Days/yr:

|  |               |               |               |               |
|--|---------------|---------------|---------------|---------------|
|  |               |               |               |               |
|  |               |               |               |               |
|  | (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

Per Site Release:

## POST FOCUS EXPOSURE REPORT

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## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 2

RELEASE ACTIVITY: [REDACTED] PDM,max ADR

FACILITY NAME: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Yes DISCHARGE TYPE: Direct

NPDES PERMIT # [REDACTED]

EXPOSED POPULATION: Adult

| WWT<br>REMOVAL<br>(%) | RELEASE<br>DAYS | PRETREATMENT<br>RELEASE<br>(kg/site/day) | POSTTREATMENT<br>RELEASE<br>(kg/site/day) | DWT<br>(%) | BCF<br>(L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| [REDACTED]            | [REDACTED]      | [REDACTED]                               | [REDACTED]                                | [REDACTED] | [REDACTED]    |

| AQUATIC EXPOSURE ESTIMATES - SURFACE WATER |               |            |            |            |            |
|--|---------------|------------|------------|------------|------------|
| FLOW DESCRIPTOR                            | Harmonic Mean | 3Q5        | 7Q10       | [REDACTED] | PLANT      |
| FLOW (MLD)                                 | [REDACTED]    | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| CONCENTRATION ( $\mu\text{g/L}$ )          | 2.10E-03      | 7.46E-03   | 1.00E-02   | 1.26E-02   | NA         |

| DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES |                        |                      |                        |                      |
|--|------------------------|----------------------|------------------------|----------------------|
| Exposure Units   | Drinking Water Results | Drinking Water Units | Fish Ingestion Results | Fish Ingestion Units |
| Cancer   |                        |                      |                        |                      |
| LADD <sub>pot</sub>  | 1.98E-09 mg/kg/day     |                      | 2.68E-11 mg/kg/day     |                      |
| LADC <sub>pot</sub>  | 1.01E-07 mg/L          |                      | 3.21E-07 mg/kg         |                      |
| Acute  |                        |                      |                        |                      |
| ADR <sub>pot</sub>   | 6.23E-07 mg/kg/day     |                      | 1.19E-08 mg/kg/day     |                      |

Surface Water Comments:



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## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 2

RELEASE ACTIVITY: [REDACTED] PDM,max ADR

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING STREAM NAME: [REDACTED]

REACH NUMBER [REDACTED]

FACILITY ON REACH: Yes

DISCHARGE TYPE: Direct

NPDES PERMIT NUMBER: [REDACTED]

GAGING STATION ID: N/A

GAGING STATION

GAGING STATION

NUMBER OF STATIONS ON

PERIOD OF RECORD: N/A

NUMBER OF

REACH: N/A

OBSERVATIONS: N/A

MEAN FLOW (MLD) [REDACTED]

7q10 FLOW (MLD): [REDACTED]

EFFLUENT FLOW (MLD): [REDACTED]

## RESULTS

| COC (µg/L) | Percent of Year<br>COC Exceeded | Number of Days<br>COC Exceeded | Release<br>days/year | Pre-treatment<br>Loading<br>(kg/site/day) | Waste Water<br>Treatment (%) |
|------------|---------------------------------|--------------------------------|----------------------|---|------------------------------|
| 1000.00    | 0                               | 0                              | [REDACTED]           | [REDACTED]                                | [REDACTED]                   |

## POST FOCUS EXPOSURE REPORT

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|   |
|---|
| <b>INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)</b> |
|---|

SCENARIO #: 2

RELEASE ACTIVITY: [REDACTED] PDM,max ADR

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites: [REDACTED]

Per Site Fugitive Release:

[REDACTED] kg/site/day

Fugitive Release Days per Year:

[REDACTED] days

% Removal via Fugitive Release:

0.00 %

Total Fugitive Release:

[REDACTED] kg/yr

Max Annual Average Air Concentration  
(Fugitive):3.71E-02  $\mu\text{g}/\text{m}^3$ Max 24 Hour Average Air  
Concentration(Fugitive):170.00  $\mu\text{g}/\text{m}^3$ 

Per Site Stack Release:

[REDACTED] kg/site/day

Stack Release Days per Year:

[REDACTED] days

% Removal via Stack Release:

0.00 %

Total Stack Release:

[REDACTED] kg/yr

Max Annual Average Air Concentration (Stack):

0.00  $\mu\text{g}/\text{m}^3$ 

Max 24 Hour Average Air Concentration (Stack):

0.00  $\mu\text{g}/\text{m}^3$ 

| Exposure Units                           | Results<br>(Stack) | Results<br>(Fugitive) | ASSUMPTIONS   |               |            |                                   |
|--|--------------------|-----------------------|---------------|---------------|------------|-----------------------------------|
|  |                    |                       | ED<br>(years) | AT<br>(years) | BW<br>(kg) | Inh. Rate<br>(m <sup>3</sup> /hr) |
| Cancer                                   |                    |                       |               |               |            |                                   |
| LADD <sub>pot</sub> (mg/kg/day)          | N/A                | 2.73E-06              | 30.00         | 75.00         | 71.80      | 0.55                              |
| LADC <sub>pot</sub> (mg/m <sup>3</sup> ) | N/A                | 1.48E-05              | 30.00         | 75.00         | NA         | NA                                |
| Acute                                    |                    |                       |               |               |            |                                   |
| ADR <sub>pot</sub> (mg/kg/day)           | N/A                | 3.13E-02              | NA            | 1 day         | 71.80      | 0.55                              |

Inhalation Comments:

## Stack Parameter Data

|                          |        |       |
|--------------------------|--------|-------|
| Stack Height             | 10.00  | m     |
| Inside Stack Diameter:   | 0.10   | m     |
| Stack Gas Exit Velocity: | 0.10   | m/sec |
| Stack Gas Temperature:   | 293.00 | K     |

## Fugitive Parameter Data

|                            |     |
|----------------------------|-----|
| Release Height:            | N/A |
| Length of Release Opening: | N/A |
| Width of Release Opening:  | N/A |

## Meteorological and Terrain Information:

|                                    |          |
|------------------------------------|----------|
| Surrounding Land Use:              | Rural    |
| Terrain Height:                    | 0.00 m   |
| Distance to Residence of Interest: | 100.00 m |
| Meteorological Class:              | Full     |
| Stability Class:                   | NA       |
| Wind Speed:                        | NA       |

## Downwash Information:

|                  |      |
|------------------|------|
| Facility Length: | NA m |
| Facility Width:  | NA m |
| Facility Height: | NA m |

## POST FOCUS EXPOSURE REPORT

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Assessor:

## ENVIRONMENTAL RELEASES

Scenario#:3

Number of Release Sites: [REDACTED]

Release Activity: [REDACTED] PDM

| Release Description: | WATER | LANDFILL          | STACK | FUGITIVE |
|----------------------|-------|-------------------|-------|----------|
|                      |       | Non-sludge/Sludge |       |          |

Total Releases:

(kg/yr)

(kg/yr)

(kg/yr)

(kg/yr)

## Non-sludge/Sludge

Release Days/yr:

Per Site Release:

(kg/site/day)

(kg/site/day)

(kg/site/day)

(kg/site/day)

Remarks: [REDACTED]

## POST FOCUS EXPOSURE REPORT

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## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:3

RELEASE ACTIVITY: [REDACTED] PDM

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER [REDACTED]

FACILITY ON REACH: Yes DISCHARGE TYPE: Direct

NPDES PERMIT #: [REDACTED]

EXPOSED POPULATION: Adult

| WWT<br>REMOVAL<br>(%) | RELEASE<br>DAYS | PRETREATMENT<br>RELEASE<br>(kg/site/day) | POSTTREATMENT<br>RELEASE<br>(kg/site/day) | DWT<br>(%) | BCF<br>(L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| [REDACTED]            | [REDACTED]      | [REDACTED]                               | [REDACTED]                                | [REDACTED] | [REDACTED]    |

| AQUATIC EXPOSURE ESTIMATES - SURFACE WATER |               |            |            |            |            |
|--|---------------|------------|------------|------------|------------|
| FLOW DESCRIPTOR                            | Harmonic Mean | 30Q5       | 7Q10       | 1Q10       | PLANT      |
| FLOW (MLD)                                 | [REDACTED]    | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| CONCENTRATION (µg/L)                       | 2.04E-03      | 7.24E-03   | 9.72E-03   | 1.22E-02   | NA         |

| DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES |                        |                      |                        |                      |
|--|------------------------|----------------------|------------------------|----------------------|
| Exposure Units   | Drinking Water Results | Drinking Water Units | Fish Ingestion Results | Fish Ingestion Units |
| Cancer   |                        |                      |                        |                      |
| LADD <sub>pot</sub>  | 1.31E-08 mg/kg/day     |                      | 1.77E-10 mg/kg/day     |                      |
| LADC <sub>pot</sub>  | 6.71E-07 mg/L          |                      | 2.12E-06 mg/kg         |                      |
| Acute  |                        |                      |                        |                      |
| ADR <sub>pot</sub>   | 6.05E-07 mg/kg/day     |                      | 1.16E-08 mg/kg/day     |                      |

Surface Water Comments:

## POST FOCUS EXPOSURE REPORT

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## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 3

RELEASE ACTIVITY: [REDACTED] PDM

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING STREAM NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Yes

DISCHARGE TYPE: Direct

NPDES PERMIT NUMBER: [REDACTED]

GAGING STATION ID: N/A

GAGING STATION

GAGING STATION

NUMBER OF STATIONS ON

PERIOD OF RECORD: N/A

NUMBER OF

REACH: N/A

OBSERVATIONS: N/A

MEAN FLOW (MLD): [REDACTED]

7q10 FLOW (MLD): [REDACTED]

EFFLUENT FLOW (MLD) [REDACTED]

## RESULTS

| COC (µg/L) | Percent of Year<br>COC Exceeded | Number of Days<br>COC Exceeded | Release<br>days/year | Pre-treatment<br>Loading<br>(kg/site/day) | Waste Water<br>Treatment (%) |
|------------|---------------------------------|--------------------------------|----------------------|---|------------------------------|
| 1000.00    | 0                               | 0                              | [REDACTED]           | [REDACTED]                                | [REDACTED]                   |

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

Assessor:

## ENVIRONMENTAL RELEASES

Scenario#:4

Number of Release Sites: [REDACTED]

Release Activity: [REDACTED] max LADD

| Release Description: | WATER                       | LANDFILL<br>Non-sludge/Sludge | STACK                       | FUGITIVE                    |
|----------------------|-----------------------------|-------------------------------|-----------------------------|-----------------------------|
| Total Releases:      | [REDACTED]<br>(kg/yr)       | [REDACTED]<br>(kg/yr)         | [REDACTED]<br>(kg/yr)       | [REDACTED]<br>(kg/yr)       |
| Release Days/yr:     | [REDACTED]                  | [REDACTED]                    | [REDACTED]                  | [REDACTED]                  |
| Per Site Release:    | [REDACTED]<br>(kg/site/day) | [REDACTED]<br>(kg/site/day)   | [REDACTED]<br>(kg/site/day) | [REDACTED]<br>(kg/site/day) |

Remarks: [REDACTED]

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER:4

RELEASE ACTIVITY: [REDACTED] max LADD

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Yes DISCHARGE TYPE: Direct

NPDES PERMIT #: [REDACTED]

EXPOSED POPULATION: Adult

| WWT<br>REMOVAL<br>(%) | RELEASE<br>DAYS | PRETREATMENT<br>RELEASE<br>(kg/site/day) | POSTTREATMENT<br>RELEASE<br>(kg/site/day) | DWT<br>(%) | BCF<br>(L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| [REDACTED]            | [REDACTED]      | [REDACTED]                               | [REDACTED]                                | [REDACTED] | [REDACTED]    |

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

| FLOW DESCRIPTOR | Harmonic Mean | 30Q5       | 7Q10       | 1Q10       | PLANT      |
|-----------------|---------------|------------|------------|------------|------------|
| [REDACTED]      | [REDACTED]    | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |

## DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES

| Exposure Units      | Drinking Water<br>Results | Drinking Water<br>Units | Fish Ingestion<br>Results | Fish Ingestion<br>Units |
|---------------------|---------------------------|-------------------------|---------------------------|-------------------------|
|                     | Cancer                    |                         |                           |                         |
| LADD <sub>pot</sub> | 1.31E-08 mg/kg/day        |                         | 1.77E-10 mg/kg/day        |                         |
| LADC <sub>pot</sub> | 6.71E-07 mg/L             |                         | 2.12E-06 mg/kg            |                         |
|                     |                           |                         |                           |                         |
|                     |                           |                         |                           |                         |

Surface Water Comments:



## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

## INHALATION EXPOSURE ESTIMATES (POST-TREATMENT)

SCENARIO #: 4 RELEASE ACTIVITY [REDACTED] max LADD

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites: [REDACTED]

Per Site Fugitive Release: [REDACTED] kg/site/day

Fugitive Release Days per Year: [REDACTED] days

% Removal via Fugitive Release: 0.00 %

Total Fugitive Release: [REDACTED] kg/yr

Max Annual Average Air Concentration (Fugitive): 5.44  $\mu\text{g}/\text{m}^3$ Max 24 Hour Average Air Concentration(Fugitive): 2.48E+04  $\mu\text{g}/\text{m}^3$ 

Per Site Stack Release: [REDACTED] kg/site/day

Stack Release Days per Year: [REDACTED] days

% Removal via Stack Release: 0.00 %

Total Stack Release: [REDACTED] kg/yr

Max Annual Average Air Concentration (Stack): 0.00  $\mu\text{g}/\text{m}^3$ Max 24 Hour Average Air Concentration (Stack): 0.00  $\mu\text{g}/\text{m}^3$ 

| Exposure Units                           | Results<br>(Stack) | Results<br>(Fugitive) | ASSUMPTIONS   |               |            |                                   |
|--|--------------------|-----------------------|---------------|---------------|------------|-----------------------------------|
|  |                    |                       | ED<br>(years) | AT<br>(years) | BW<br>(kg) | Inh. Rate<br>(m <sup>3</sup> /hr) |
| Cancer                                   |                    |                       |               |               |            |                                   |
| LADD <sub>pot</sub> (mg/kg/day)          | N/A                | 4.00E-04              | 30.00         | 75.00         | 71.80      | 0.55                              |
| LADC <sub>pot</sub> (mg/m <sup>3</sup> ) | N/A                | 2.18E-03              | 30.00         | 75.00         | NA         | NA                                |
|  |                    |                       |               |               |            |                                   |
|  |                    |                       |               |               |            |                                   |

Inhalation Comments:

## Stack Parameter Data

|                          |        |       |
|--------------------------|--------|-------|
| Stack Height             | 10.00  | m     |
| Inside Stack Diameter:   | 0.10   | m     |
| Stack Gas Exit Velocity: | 0.10   | m/sec |
| Stack Gas Temperature:   | 293.00 | K     |

## Fugitive Parameter Data

|                            |     |
|----------------------------|-----|
| Release Height:            | N/A |
| Length of Release Opening: | N/A |
| Width of Release Opening:  | N/A |

## Meteorological and Terrain Information:

|                                    |           |
|------------------------------------|-----------|
| Surrounding Land Use:              | Rural     |
| Terrain Height:                    | 0.00      |
| Distance to Residence of Interest: | 0.00      |
| Meteorological Class:              | Full      |
| Stability Class:                   | NA        |
| Wind Speed:                        | NA ft/sec |

## Downwash Information:

|                  |    |   |
|------------------|----|---|
| Facility Length: | NA | m |
| Facility Width:  | NA | m |
| Facility Height: | NA | m |

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

Assessor:

## ENVIRONMENTAL RELEASES

Scenario#:5

Number of Release Sites: 1

Release Activity: PDM, max ADR

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|-------|----------|-------|----------|
|                      |       |          |       |          |

Non-sludge/Sludge

| Total Releases: |         |         |         |         |
|-----------------|---------|---------|---------|---------|
|                 |         |         |         |         |
|                 | (kg/yr) | (kg/yr) | (kg/yr) | (kg/yr) |

## Non-sludge/Sludge

Release Days/yr:

Per Site Release:

|               |               |               |               |
|---------------|---------------|---------------|---------------|
|               |               |               |               |
| (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

Remarks:

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

## SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5

Number of Sites: [REDACTED]

RELEASE ACTIVITY [REDACTED]

PDM, max ADR

SIC-CODE DESCRIPTION: [REDACTED]

SIC-CODE (S): [REDACTED]

EXPOSED POPULATION: Adult

| WWT<br>REMOVAL<br>(%) | RELEASE<br>DAYS | PRETREATMENT<br>RELEASE<br>(kg/site/day) | POSTTREATMENT<br>RELEASE<br>(kg/site/day) | DWT<br>(%) | BCF<br>(L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| [REDACTED]            | [REDACTED]      | [REDACTED]                               | [REDACTED]                                | [REDACTED] | [REDACTED]    |

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

| PLANT<br>TYPE | % ILE<br>FACILITY | STREAM FLOW (MLD) |      |      |      | STREAM CONC. (µg/l) |      |      |      |
|---------------|-------------------|-------------------|------|------|------|---------------------|------|------|------|
|               |                   | Harmonic<br>Mean  | 30Q5 | 7Q10 | 1Q10 | Harmonic<br>Mean    | 30Q5 | 7Q10 | 1Q10 |
| ALL           | 50                | [REDACTED]        |      |      |      |                     |      |      |      |
| ALL           | 10                |                   |      |      |      |                     |      |      |      |

## DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES

| Exposure Units      | Drinking Water Results |          | Drinking Water Units | Fish Ingestion Results |          | Fish Ingestion Units |
|---------------------|------------------------|----------|----------------------|------------------------|----------|----------------------|
|                     | 50%                    | 10%      |                      | 50%                    | 10%      |                      |
| Cancer              |                        |          |                      |                        |          |                      |
| LADD <sub>pot</sub> | 5.04E-09               | 3.66E-08 | mg/kg/day            | 6.82E-11               | 4.96E-10 | mg/kg/day            |
| LADC <sub>pot</sub> | 2.58E-07               | 1.88E-06 | mg/L                 | 8.16E-07               | 5.94E-06 | mg/kg                |
| Acute               |                        |          |                      |                        |          |                      |
| ADR <sub>pot</sub>  | 2.09E-07               | 1.95E-06 | mg/kg/day            | 6.11E-09               | 4.44E-08 | mg/kg/day            |

SIC Code Comments:

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

## SIC CODE EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 5

RELEASE ACTIVITY: [REDACTED] PDM, max ADR

SIC CODE DESCRIPTION: [REDACTED]

ASSOCIATED SIC CODES: [REDACTED]

## SIC CODE RESULTS

| COC (µg/L) | Percent of<br>Year COC<br>Exceeded | Number of<br>Days COC<br>Exceeded | Release<br>days/year | Loading<br>(kg/site/day) | Waste Water<br>Treatment (%) | High/Avg<br>Analysis |
|------------|------------------------------------|-----------------------------------|----------------------|--------------------------|------------------------------|----------------------|
| 1000.00    | 0                                  | 0                                 | [REDACTED]           |                          |                              |                      |

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

Assessor:

## ENVIRONMENTAL RELEASES

Scenario#:6

Number of Release Sites: [REDACTED]

Release Activity: [REDACTED] max LADD

Release Description:

WATER

LANDFILL

STACK

FUGITIVE

Non-sludge/Sludge

Total Releases:

|            |            |            |            |
|------------|------------|------------|------------|
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| (kg/yr)    | (kg/yr)    | (kg/yr)    | (kg/yr)    |

Non-sludge/Sludge

Release Days/yr:

|            |            |            |            |
|------------|------------|------------|------------|
| [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
|------------|------------|------------|------------|

Per Site Release:

|               |               |               |               |
|---------------|---------------|---------------|---------------|
| [REDACTED]    | [REDACTED]    | [REDACTED]    | [REDACTED]    |
| (kg/site/day) | (kg/site/day) | (kg/site/day) | (kg/site/day) |

Remarks: [REDACTED]

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

## SIC-CODE BASED HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO #: 6

Number of Sites: 1

RELEASE ACTIVITY: 100%, max  
LADD

SIC-CODE DESCRIPTION: [REDACTED]

SIC-CODE (S): [REDACTED]

EXPOSED POPULATION: Adult

| WWT<br>REMOVAL<br>(%) | RELEASE<br>DAYS | PRETREATMENT<br>RELEASE<br>(kg/site/day) | POSTTREATMENT<br>RELEASE<br>(kg/site/day) | DWT<br>(%) | BCF<br>(L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| [REDACTED]            | [REDACTED]      | [REDACTED]                               | [REDACTED]                                | [REDACTED] | [REDACTED]    |

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

| PLANT<br>TYPE | % ILE<br>FACILITY | STREAM FLOW (MLD) |      |      |      | STREAM CONC. (µg/l) |      |      |      |
|---------------|-------------------|-------------------|------|------|------|---------------------|------|------|------|
|               |                   | Harmonic<br>Mean  | 30Q5 | 7Q10 | 1Q10 | Harmonic<br>Mean    | 30Q5 | 7Q10 | 1Q10 |
| ALL           | 50                |                   |      |      |      |                     |      |      |      |
| ALL           | 10                |                   |      |      |      |                     |      |      |      |

## DRINKING WATER AND FISH INGESTION EXPOSURE ESTIMATES

| Exposure Units      | Drinking Water Results |          | Drinking Water Units | Fish Ingestion Results |          | Fish Ingestion Units |
|---------------------|------------------------|----------|----------------------|------------------------|----------|----------------------|
|                     | 50%                    | 10%      |                      | 50%                    | 10%      |                      |
| Cancer              |                        |          |                      |                        |          |                      |
| LADD <sub>pot</sub> | 4.45E-09               | 3.24E-08 | mg/kg/day            | 6.03E-11               | 4.38E-10 | mg/kg/day            |
| LADC <sub>pot</sub> | 2.28E-07               | 1.66E-06 | mg/L                 | 7.21E-07               | 5.25E-06 | mg/kg                |
|                     |                        |          |                      |                        |          |                      |

SIC Code Comments:

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

Assessor:

## ENVIRONMENTAL RELEASES

Scenario#:7

Number of Release Sites: [REDACTED]

Release Activity: [REDACTED] PDM, max ADR

| Release Description: | WATER | LANDFILL          | STACK | FUGITIVE |
|----------------------|-------|-------------------|-------|----------|
|                      |       | Non-sludge/Sludge |       |          |

Total Releases:

(kg/yr)

(kg/yr)

(kg/yr)

(kg/yr)

## Non-sludge/Sludge

Release Days/yr:

Per Site Release:

(kg/site/day)

(kg/site/day)

(kg/site/day)

(kg/site/day)

Remarks: [REDACTED]



## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 7

RELEASE ACTIVITY: [REDACTED] PDM, max ADR

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Yes DISCHARGE TYPE: Direct

NPDES PERMIT #: [REDACTED]

EXPOSED POPULATION: Adult

| WWT<br>REMOVAL<br>(%) | RELEASE<br>DAYS | PRETREATMENT<br>RELEASE<br>(kg/site/day) | POSTTREATMENT<br>RELEASE<br>(kg/site/day) | DWT<br>(%) | BCF<br>(L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| [REDACTED]            | [REDACTED]      | [REDACTED]                               | [REDACTED]                                | [REDACTED] | [REDACTED]    |

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

| FLOW DESCRIPTOR      | Harmonic Mean | 30Q5       | 7Q10       | 1Q10       | PLANT      |
|----------------------|---------------|------------|------------|------------|------------|
| FLOW (MLD)           | [REDACTED]    | [REDACTED] | [REDACTED] | [REDACTED] | [REDACTED] |
| CONCENTRATION (µg/L) | 5.47E-07      | 1.94E-06   | 2.61E-06   | 3.28E-06   | NA         |

## DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES

| Exposure Units      | Drinking Water Results | Drinking Water Units | Fish Ingestion Results | Fish Ingestion Units |
|---------------------|------------------------|----------------------|------------------------|----------------------|
| Cancer              |                        |                      |                        |                      |
| LADD <sub>pot</sub> | 1.46E-12 mg/kg/day     |                      | 1.98E-14 mg/kg/day     |                      |
| LADC <sub>pot</sub> | 7.50E-11 mg/L          |                      | 2.37E-10 mg/kg         |                      |
| Acute               |                        |                      |                        |                      |
| ADR <sub>pot</sub>  | 1.62E-10 mg/kg/day     |                      | 3.11E-12 mg/kg/day     |                      |

Surface Water Comments:

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 7

RELEASE ACTIVITY: [REDACTED] PDM, max ADR

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING STREAM NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Yes.

DISCHARGE TYPE: Direct

NPDES PERMIT NUMBER: [REDACTED]

GAGING STATION ID: N/A

GAGING STATION

GAGING STATION

NUMBER OF STATIONS ON

PERIOD OF RECORD: N/A

NUMBER OF  
OBSERVATIONS: N/A

REACH: N/A

MEAN FLOW (MLD) [REDACTED]

7q10 FLOW (MLD): [REDACTED]

EFFLUENT FLOW (MLD) [REDACTED]

## RESULTS

| COC (µg/L) | Percent of Year<br>COC Exceeded | Number of Days<br>COC Exceeded | Release<br>days/year | Pre-treatment<br>Loading<br>(kg/site/day) | Waste Water<br>Treatment (%) |
|------------|---------------------------------|--------------------------------|----------------------|---|------------------------------|
| 1000.00    | 0                               | 0                              | [REDACTED]           | [REDACTED]                                | [REDACTED]                   |

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

Assessor:

## ENVIRONMENTAL RELEASES

Scenario#:8

Number of Release Sites: ■

Release Activity: ■, Max LADD

| Release Description: | WATER | LANDFILL | STACK | FUGITIVE |
|----------------------|-------|----------|-------|----------|
|----------------------|-------|----------|-------|----------|

Non-sludge/Sludge

Total Releases:

(kg/yr)

(kg/yr)

(kg/yr)

(kg/yr)

Non-sludge/Sludge

Release Days/yr:

Per Site Release:

(kg/site/day)

(kg/site/day)

(kg/site/day)

(kg/site/day)

Remarks: Unknown Site

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 8

RELEASE ACTIVITY: [REDACTED] Max LADD

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING WATER NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Yes DISCHARGE TYPE: Direct

NPDES PERMIT #: [REDACTED]

EXPOSED POPULATION: Adult

| WWT<br>REMOVAL<br>(%) | RELEASE<br>DAYS | PRETREATMENT<br>RELEASE<br>(kg/site/day) | POSTTREATMENT<br>RELEASE<br>(kg/site/day) | DWT<br>(%) | BCF<br>(L/kg) |
|-----------------------|-----------------|--|---|------------|---------------|
| [REDACTED]            | [REDACTED]      | [REDACTED]                               | [REDACTED]                                | [REDACTED] | [REDACTED]    |

## AQUATIC EXPOSURE ESTIMATES - SURFACE WATER

| FLOW DESCRIPTOR      | Harmonic Mean | 3Q5 | 7Q10 | 1Q10 | PLANT |
|----------------------|---------------|-----|------|------|-------|
| FLOW (MLD)           |               |     |      |      |       |
| CONCENTRATION (µg/L) |               |     |      |      |       |

## DRINKING WATER INGESTION AND FISH INGESTION EXPOSURE ESTIMATES

| Exposure Units      | Drinking Water<br>Results | Drinking Water<br>Units | Fish Ingestion<br>Results | Fish Ingestion<br>Units |
|---------------------|---------------------------|-------------------------|---------------------------|-------------------------|
| Cancer              |                           |                         |                           |                         |
| LADD <sub>pot</sub> | 1.44E-12 mg/kg/day        |                         | 1.95E-14 mg/kg/day        |                         |
| LADC <sub>pot</sub> | 7.38E-11 mg/L             |                         | 2.33E-10 mg/kg            |                         |
|                     |                           |                         |                           |                         |

Surface Water Comments:

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

## SITE-SPECIFIC HUMAN AND AQUATIC EXPOSURES TO SURFACE WATER RELEASES

SCENARIO NUMBER: 8

RELEASE ACTIVITY: [REDACTED] Max LADD

FACILITY NAME: [REDACTED]

FACILITY LOCATION: [REDACTED]

RECEIVING STREAM NAME: [REDACTED]

REACH NUMBER: [REDACTED]

FACILITY ON REACH: Yes

DISCHARGE TYPE: Direct

NPDES PERMIT NUMBER: [REDACTED]

GAGING STATION ID: N/A

GAGING STATION

GAGING STATION

NUMBER OF STATIONS ON

PERIOD OF RECORD: N/A

NUMBER OF

REACH: N/A

OBSERVATIONS: N/A

## RESULTS

| COC (µg/L) | Percent of Year<br>COC Exceeded | Number of Days<br>COC Exceeded | Release<br>days/year | Pre-treatment<br>Loading<br>(kg/site/day) | Waste Water<br>Treatment (%) |
|------------|---------------------------------|--------------------------------|----------------------|---|------------------------------|
| 1000.00    | 0                               | 0                              | [REDACTED]           |   |                              |

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

Assessor:

## ENVIRONMENTAL RELEASES

Scenario#:9

Number of Release Sites: [REDACTED]

Release Activity: [REDACTED] max LADD

| Release Description: | WATER | LANDFILL<br>Non-sludge/Sludge | STACK | FUGITIVE |
|----------------------|-------|-------------------------------|-------|----------|
|----------------------|-------|-------------------------------|-------|----------|

Total Releases:

[REDACTED]  
(kg/yr)[REDACTED]  
(kg/yr)[REDACTED]  
(kg/yr)[REDACTED]  
(kg/yr)

Non-sludge/Sludge

Release Days/yr:

Per Site Release:

[REDACTED]  
(kg/site/day)[REDACTED]  
(kg/site/day)[REDACTED]  
(kg/site/day)[REDACTED]  
(kg/site/day)

Remarks: [REDACTED]

## POST FOCUS EXPOSURE REPORT

Chemical ID: P080508a

|  |
|--|
| INHALATION EXPOSURE ESTIMATES (POST-TREATMENT) |
|--|

SCENARIO #: 9

RELEASE ACTIVITY [REDACTED], max LADD

RELEASE DESCRIPTION:

METHOD OF CALCULATION: Screen3

EXPOSED POPULATION: Adult

Number of Sites: [REDACTED]

Per Site Fugitive Release:

[REDACTED] kg/site/day

Fugitive Release Days per Year:

[REDACTED] days

% Removal via Fugitive Release:

[REDACTED] %

Total Fugitive Release:

[REDACTED] kg/yr

Max Annual Average Air Concentration  
(Fugitive):6.19  $\mu\text{g}/\text{m}^3$ Max 24 Hour Average Air  
Concentration(Fugitive):2.82E+04  $\mu\text{g}/\text{m}^3$ 

Per Site Stack Release:

[REDACTED] kg/site/day

Stack Release Days per Year:

[REDACTED] days

% Removal via Stack Release:

0.00 %

Total Stack Release:

[REDACTED] kg/yr

Max Annual Average Air Concentration (Stack):

3.69E-03  $\mu\text{g}/\text{m}^3$ 

Max 24 Hour Average Air Concentration (Stack):

6.74  $\mu\text{g}/\text{m}^3$ 

| Exposure Units                           | Results<br>(Stack) | Results<br>(Fugitive) | ASSUMPTIONS   |               |            |                                   |
|--|--------------------|-----------------------|---------------|---------------|------------|-----------------------------------|
|  |                    |                       | ED<br>(years) | AT<br>(years) | BW<br>(kg) | Inh. Rate<br>(m <sup>3</sup> /hr) |
| Cancer                                   |                    |                       |               |               |            |                                   |
| LADD <sub>pot</sub> (mg/kg/day)          |                    | 4.55E-04              | 30.00         | 75.00         | 71.80      | 0.55                              |
| LADC <sub>pot</sub> (mg/m <sup>3</sup> ) |                    | 2.48E-03              | 30.00         | 75.00         | NA         | NA                                |
|  |                    |                       |               |               |            |                                   |

Inhalation Comments:

## Stack Parameter Data

|                          |        |       |
|--------------------------|--------|-------|
| Stack Height             | 10.00  | m     |
| Inside Stack Diameter:   | 0.10   | m     |
| Stack Gas Exit Velocity: | 0.10   | m/sec |
| Stack Gas Temperature:   | 293.00 | K     |

## Fugitive Parameter Data

|                            |       |   |
|----------------------------|-------|---|
| Release Height:            | 3.00  | m |
| Length of Release Opening: | 10.00 | m |
| Width of Release Opening:  | 10.00 | m |

## Meteorological and Terrain Information:

|                                    |          |
|------------------------------------|----------|
| Surrounding Land Use:              | Rural    |
| Terrain Height:                    | 0.00 m   |
| Distance to Residence of Interest: | 100.00 m |
| Meteorological Class:              | Full     |
| Stability Class:                   | NA       |
| Wind Speed:                        | NA       |

## Downwash Information:

|                  |      |
|------------------|------|
| Facility Length: | NA m |
| Facility Width:  | NA m |
| Facility Height: | NA m |